

# THE CHEMIST

May, 1955

VOLUME XXXII



NUMBER 5



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May, 1955

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Annual Meeting Proceedings.

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## TO COME IN JUNE

Some of the finest original contributions to the literature of the profession were prepared for the Thirty-second Annual Meeting at Chicago, Ill., May 11-13th, around the theme, "Working With People." The Proceedings of this meeting and the papers presented will appear in the June issue of *THE CHEMIST*, which will be extra-large to contain as many of the papers as possible.

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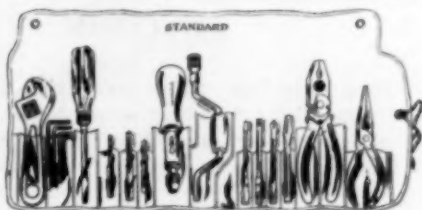
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## EDITORIALS

# Committee Management

**John Kotrady**

*Chairman, New York Chapter, The American Institute of Chemists*

**T**HE committee method is just about as old as the human race. When fighting with rocks and clubs gave way to talking things over, the committee idea was born. And from that day on, we haven't been able to get along without committees — in business, government, church and professional societies.

The very businesses which employ us are run by committees; only the top one is called the Board of Directors. In many companies, committee meetings are the vehicle for exchange of information so that department heads may be brought up to date on company activities other than their own, and where problems and possible solutions are examined.

In the New York Chapter, twenty-three committees are functioning full blast; with more on the horizon. Extensive use is made of committees because committees work. The Council keeps the groups engaged in work, supplies the best ideas, and keeps things moving logically toward the goal. In fact, being chairman of a committee is good training in "committee management" — how to lead a group of people through to a conclusion and keep the atmosphere as pleasant as possible. Things can go wrong, particularly if you have one member needling in ideas and ques-

tioning the old concepts and the other satisfied with the accomplishments of the past. Also, things can go too smoothly. Too much agreement — as well as too much disagreement — is a sign of trouble. When disagreements pass a critical point, often pushed there by too high a rate of suggestion-giving, logic goes out the window.

One of the most discouraging things about committees is the undeniable fact that at times they move with glacial slowness. Meeting after meeting may be held with no appreciable progress, especially when individual views seem wide of the mark. But, if you take the long-range perspective and look back over the accomplishments which most committees have made since their inception, nine times out of ten that progress is very real.

The decisions that committees reach, the policies they establish, the actions they take, are usually more wise, more universally right, than any individual could have achieved working alone.

Basically, the purpose of a committee discussion is to secure all points of view in the group; then, by choosing the points of agreement, to reach a consensus as to the best policy to adopt.

## Mr. Irving Comes to the Editor's Rescue!

"**T**HUS perplexed by the advice of his friends, who each in turn closed some particular path, but left him all the world beside to range in, the editor found that to follow all their counsels would, in fact, be to stand still.

"He remained for a time sadly embarrassed; when, all at once, the thought struck him to ramble on as he had begun; that his work being miscellaneous, and written for different humors, it could not be expected that anyone would be pleased with the whole; but that if it should contain something to suit each reader, his end would be completely answered. Few guests sit down to a varied table with an equal appetite for each dish. One has an elegant horror of a roasted pig; another holds a curry or a devil in utter abomination; a third cannot tolerate the ancient flavor of vension and wild fowl; and a fourth, of truly masculine stomach, looks with sovereign contempt on those knickknacks, here and there dished up for the ladies. Thus each article is condemned in its turn; and yet, amidst this variety of appetites, seldom does a dish go away from the table without being tasted and relished by one or other of the guests.

"With these considerations . . . (the editor) simply requests the reader, if he should find here and there something to please him, to

rest assured that it was written expressly for intelligent readers like himself, but entreats him, should he find anything to dislike, to tolerate it, as one of those articles which the editor has been obliged to publish for readers of a less refined taste."

—WASHINGTON IRVING  
*The Sketch Book*

**Community Award:** Presented by the Greater New London and Groton (Conn.) Chambers of Commerce to Dr. John E. McKeen, Hon. AIC, president of Chas. Pfizer & Co., and Walter L. Elwood, Jr., F.A.I.C., superintendent of Pfizer's Groton plant, in recognition of the fine community cooperation the company has shown.

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# The Common Chemist

Kenneth E. Bell

122 Clifton Ave., Marblehead, Clifton, Mass.

(Presented when the author received the Honor Scroll of the New England A.I.C. Chapter, March 1, 1955, in Cambridge, Mass.)

RECENT literature has been full of reports of symposia, panels and studies on the detection, selection, development, and encouragement of men of unusual ability. The *Harvard Business Review* has published detailed analyses of the plans for executive development which have been evolved and put into operation by the major corporations. In these, the unusual man is given unusual opportunities for development. The Massachusetts Institute of Technology has the avowed policy of giving the unusual man unusual opportunities for undergraduate and graduate study. The public is justifiably pop-eyed at the stories of the careers of the supermen now heading our giant corporations. The period from 1925 to 1950 can well be designated as that of the super industrial executive.

This period was unusual. Men of vision, defying Roosevelt's pontification that we had reached our last frontier, planned, built and operated giant plants utilizing hydrogenation, high pressure synthesis, and fluid catalysis, in the thirties. So, when World War II came, the stage was set for the magnificent jobs achieved by dedicated groups, in rubber synthesis, the Manhattan project, and

many others. Without the brilliance, untiring devotion, and drive of the Comptons, Conants, Van Bushes and others, such results could not have been achieved.

However, the mortality rate on these giants began to go up appallingly after World War II and the waste of killing off top manpower by impossible demands became apparent when Farish of Jersey Standard died at fifty-eight, and many others like him. It was at this time that plans were initiated for broadening the base of the pyramid of executive responsibility and for the development of first rate men from what would have been considered second rate material ten years ago. We now find many companies reorganized with an executive vice president, and other vice presidents who carry full and often heavy responsibilities for their divisions, technical, sales, personnel, and financial, with the work horse as president or chairman of the board coordinating as first among equals, and given a sporting chance of survival to enjoy retirement. I venture to predict the period from 1950 to 1975 will be notable for secondary executive development.

I am heartily in favor of such pro-

grams and expect to see them greatly improved and strengthened, for our industrial expansion has been such that the demand and need for executives has outrun our abilities to train them. It seems certain that more common sense must creep into some of them. I recall vividly an afternoon spent by a group of thirty in this building in a discussion of the tests necessary to detect creative ability. To say the least, the psychiatrists' concepts of tests to determine creative ability were weird to many of us. It is already apparent from the reported results of operation of plans that an organization chart doesn't make an organization and that there are worse executive development plans than the time-honored one of putting a likely man opposite an executive of proved ability and letting him learn by imbibition.

But assuming the success of improved plans this is not enough, either. For every man who reaches a top position, there are twenty, fifty, or a hundred who have tried and not quite succeeded, some dropping with heart attacks; others with ulcers, most frustrated. Many of these cases are inevitable, as long as the American philosophy that a man is a failure unless he reaches the top prevails. It would seem that we shall have reached an advanced stage of maturity when it is recognized that if a man has attained a position of responsibility, has brought up a family in the fear of God, and is a good citizen, he

is a success. So, for another prediction — that hard on the heels of secondary executive development will come recognition of the need of tertiary development; that we must devote time and attention to the third-rate man to up-grade him to the second string.

Abraham Lincoln once said, "God must have loved the common people, he made so many of them." In the intervening years, much has been done to improve their creature comforts, so that it is the rare working man who does not have a car, TV set, and washing machine, but too little thought has been given to his industrial development opportunities. True, our government — and we as taxpayers have spent billions of dollars in the past few years to raise the standard of living of defeated enemies; the economy of underdeveloped nations, and the health and efficiency of under-privileged peoples. We have sent trained medical personnel and medicines to the ends of the earth and brought people from all parts of the world to see how we do things. This is only common humanity and enlightened self-interest.

But, in so doing, haven't we overlooked opportunities on our own doorstep? Among these are aid and encouragement to the little man, and according him a place of honor for his contribution to the strength of our industrial organizations.

I have come to my subject, how best to use the talents of the common

chemist. This audience represents the upper crust of the profession; those who have utilized native ability and sound professional training to achieve success in teaching, research, manufacturing or executive positions. Such success has not been quick nor easy to attain, nor should it be deprecated in any way. Yet, for every one of you who has made the grade, there are thirty to fifty others who at best are only partial successes.

It is easy enough to pass them off by saying they lack adequate technical background, ambition, initiative, or even native intelligence, and that one is wasting his time in trying to improve their lot. But, is this so? I shall try to prove that this is a challenge prompted by self-interest, and that it can become as exciting and rewarding as choosing and grooming the sure-fire winners.

Further, we are all concerned by the failure of our schools to attract an adequate number of candidates for chemical and chemical engineering training, and are taking proper, but belated steps, to encourage and improve secondary school teaching of chemistry. To what extent are our failures deterring good men from entering chemistry courses?

Apart from considerations of humanity, we all share the costs of unemployment benefits, and recent studies show that sickness and accident rates are measurably increased by the worries and tensions of maladjustment to jobs; again this burden

falls on us as tax payers or participants in insurance costs.

The arithmetic is also in favor of gambling on up-grading. Assuming a top notch technical director is worth fifty third-raters. We put him down for 50 units. He has fifty third-raters at one unit each—Total 100 units. Now the chances of improving the director 20 per cent are slight, and, if achieved, would add 10 units. Total 110 units. But the chances of doubling the efficiency of third-raters are excellent, giving us, Director 50 units; Fifty men times 2, or 100 units; Total 150 units, a 50% improvement overall.

Well, what can we do about the situation? I know that many of you have given much time and thought to the selection, training, and encouragement of men in your organizations, with markedly beneficial results. Yet, at the risk of preaching to the saved, I will consider some of the factors involved in making successes of men who would otherwise become frustrated failures.

*Discouragement* is high on the list. With what I consider over-emphasis on the success of the supermen, it is inevitable that many run-of-mine chemists, recognizing they will never make the top, give up trying too early. This attitude may have become ingrained in school. In reviewing candidates for scholarships in a technical school recently, the professor in charge said that many good students failed to apply be-

cause they didn't think they had a chance. Many good men need to be drawn out, and encouraged to try out their ideas. Reliance on aptitude tests alone, without personal discussion may fail to show up some of them, who with a bit of patience may surprise you — and themselves.

This inevitably leads to an appraisal of the *quality of your own leadership*. Are you running your department for the benefit of your team mates, or as a ladder to climb for your personal benefit? Do you fire men, or fire them with enthusiasm? I have here a clipping from a recent advertisement in the *Wall Street Journal*, entitled "How to Advance Yourself by 'Firing' People," which goes on to say:

"There are two ways that you, as a business executive, can 'fire' the people in your organization who are not doing too well. One way is to discharge them for their weaknesses — even though you may really be underestimating their strengths. That means breaking in new people, who often turn out to be no better.

"The other way to 'fire' people is to use techniques that will kindle them with new interest in their work, and help them to develop their potentials to the full. That is the constructive way — for them and for you. It adds to your effectiveness as an executive, and actually multiplies your own abilities — starting right away."

Your attitude towards the company and your own department is closely watched, and what you say is carefully weighed by the men under you. Be careful that it is fair. I know

of one large company in which it was commonly believed that the executives were only interested in financial success of the company until their retirement, and not in the career of their successors. It was not true, but significant.

*Do you kid yourself?* Dwight Morrow tells of his experience in the office of a high British official, to whom a subordinate handed a report. After a brief examination the official handed it back with the words, "You've violated rule six." The subordinate flushed; said, "Beg pardon, sir," and retired. Morrow asked, "What is rule six?" "Don't take yourself too damned seriously." "That is good, what are the other five?" asked Morrow. "If you follow that, you don't need any others." You must have a personal interest in your men. And not like that of a conspicuously successful head of a concern who was very proud of his relations with his employees. While he showed a friend through his plant he put his arm around a foreman and asked how the sick wife was; inquired of another about the boy, and so on. As they left the room, the friend turned to close the door, and saw every arm upraised, with fingers extended from the nose! Your interest must be genuine. And you can't delegate it all to subordinates. If all your employees feel free to come in and talk, and not to tattle or kill time, you may learn

## THE COMMON CHEMIST

much of value, and how good some of them are!

Many of you are saying at this stage, one can't run a department on sentiment, nor spend all one's time on non-productive efforts of men. True, the work of the department must be done. After you have evaluated the new employee's training, experience and interests, you, or one of your men, assign him to a job, presumably within his capacity. Do you explain to him exactly what results you hope to achieve; what reasonable reservations you have on the possibilities of success? Do you give him reasonable latitude in choice of methods and equipment, but guidance as to general approach? And do you discuss his results with him in detail, giving encouragement and constructive criticism where indicated? Perhaps you do, but too few employers of chemists follow through all these steps, and it is here that much of the trouble starts. It may be the source of difficulty in attraction of men to chemical courses in school, for the word leaks back rapidly by the grapevine that the game isn't worth the effort, and one would have done better in electronics or what not.

Perhaps, in spite of your efforts, the man hasn't been a success in the assigned job — what then? Constructive criticism may then be in order, but don't forget what Charles Schwab said, "No really good work

was ever done under criticism." Probably reassignment is in order. We had a chemist assigned to one plant, who was constantly under criticism, and a foreign born foreman in another who didn't fit. We assigned them to start a small manufacturing unit for sulfonation of oils. They worked like Indians; their products were a success, and in a few years showed \$50,000 to \$75,000 a year profit. Everyone was pleased, including the two men with the joy of new-found success. It would have been so easy to have had them thrown out!

Then there is the question of money. I know it is hard to get raises for the less popular men, and carried too far you can encumber your department with too-contented misfits. But don't let the less-successful get discouraged by waiting too long, or feeling that they are the unwanted stepchildren. You may sometimes find that worry about the obstetrician's bill for the last baby reduces a man's efficiency, and a bit of a raise may prove a good investment. You have an excellent salary, privileges; perhaps a juicy executive bonus for all of which you have worked hard. It is mighty easy to view the world through rosy glasses under such circumstances and to overlook the other fellow's problems.

It was my privilege recently to read a paper by a successful minister, written to advise and help younger ministers, who are less than com-

pletely successful. One statement has stuck in my memory, "It is often helpful to go into the empty church and pray in the pews of those with whom you have difficulty in getting along." I know this man follows his own advice. I don't expect you to pray in the pews, but I advise trying earnestly to get the other fellow's point of view.

Enough of the preaching. But in conclusion, if you follow the advice given above, you will derive infinitely greater satisfaction from the success

of second- and third-raters, than from the sure-fire successes — who may not stay with you anyway after the first two rounds. Further, you'll have to look out that these grateful men don't spend all their time breaking their necks to make you a success.

When the word of what you are doing gets around, you may find that, as well as the second raters, you have attracted some topnotchers into your company, and the profession, who might otherwise be lost to electronics or aviation. It is worth a try!

## Presentation to Kenneth E. Bell

Lawrence H. Flett, F.A.I.C.

*Former President, The American Institute of Chemists*

THE annual award meeting of the New England Chapter of the INSTITUTE was held in Boston, Mass., March 1, 1955. Dr. Walter R. Smith, chairman of the Chapter, was toastmaster for the dinner preceding the occasion. President Keyes gave a short but very thought-provoking address on the responsibilities of the members of the AIC and the urgent necessity of their taking a more active part in public affairs.

The student medals were presented by Hervey J. Skinner, vice president and treasurer, American Conditioning House, Inc., of Boston, Mass. The Chapter was fortunate in having present a representative of each college and university that had a medalist present. The list of students and

the professors who accompanied them is as follows:

John J. Cawley with Rev. Albert F. McGuinn, Boston College  
Anne Gounaris with Prof. J. P. Mason, Boston University  
Joseph Schildkraut with Prof. L. K. Nash, Harvard University  
Yi-chi Mei with Prof. Philippa Gilchrist, Wellesley College  
Robert D. Rapp with Prof. T. R. P. Gibb, Jr., Tufts College  
Paul F. Donovan with Prof. A. A. Vernon, Northeastern University

Edwin A. Chandross and Charles M. Mohr with Prof. A. A. Ashdown, Massachusetts Institute of Technology

One student was awarded the



medal in absentia: Jay Tanzer of Northeastern University.

The 1955 Honor Scroll of the Chapter was awarded to Kenneth E. Bell, who recently retired as vice president of A. C. Lawrence Leather Company. Mr. Bell was introduced by Lawrence Flett, past president of the INSTITUTE. The introduction dwelt on the particular contributions which the recipient has made to the chemical profession. Mr. Bell has been an inspiration to young chemists. He has encouraged them to be leaders in scientific thinking and in advancing the science of chemistry.

During his entire career, Mr. Bell has been active in professional societies. He has held many official positions in these organizations and is at present a director of the Northeast Section of the American Chemical Society. Mr. Flett pointed out that the science of chemistry and industrial chemistry, as we know it today, has been made possible by the scientific societies. These societies provide an opportunity for the exchange and publication of scientific data; without this exchange of information, none of the present day advances of science would have been possible. Reference was made to the recent publication of the long list of standing committees of the American Chemical Society. It was pointed out that this is but a small part of the group continually working to advance that Society. No organization would have money enough to pay for the

### New AIC President and President-Elect

Dr. Donald B. Keyes, at the April meeting of the National Council, submitted his resignation as AIC president to implement the new amendment to the Constitution, which limits the term of president to one year. The resignation was to take effect at the conclusion of the Annual Meeting in May.

Dr. Ray P. Dinsmore, president-elect, automatically succeeds Dr. Keyes as president for the fiscal year 1955-1956.

To fill the unexpired term of president-elect, thus vacated by Dr. Dinsmore, the National Council appointed John H. Nair of Thomas J. Lipton, Inc., Hoboken, N. J.

In the spring of 1956, AIC members will elect both a president and a president-elect for the following year.

activities of these people, which has been so generously given without thought of reward, and yet the world has benefited through their activities. Mr. Bell's address occurs in preceding pages of *THE CHEMIST*.

---

*Editors Note:* No pictures were taken at the presentation. When Mr. Bell returns from Europe, if he will give us a picture of himself, we will be happy to print it in *THE CHEMIST* for our readers.

# How to Submit Inventions & Ideas to Large Corporations

Marvin Small

(These excerpts are taken from Mr. Small's book, *How to Attain Financial Security and Self Confidence* (\$2.95), through courtesy of the publishers, Simon & Schuster, 630 Fifth Ave., New York 20, N.Y.)

**L**ARGE corporations usually have fixed policies for the considerations of ideas or inventions submitted by outsiders.

Such policies usually demand that an idea have these three qualities:

1. It must be novel. "Novel" is employed in its legal sense. In practical application, a novel idea might under some conditions be one never before conceived. Under other circumstances, a novel idea might have good commercial value if it is merely a new twist on an age-old device or process.

2. It must be submitted under terms that make it clear the creator expects payment. Often a person will submit an idea in the hope of obtaining a job or a new customer. Users of a company's products or others motivated solely by feelings of good will, frequently send in suggestions with no thought or desire for compensation.

3. It must be submitted in concrete form. For example, you might write a company and say, "I think it would be a good idea to have a wheel barrow with a drop-front for easy dumping." This is not sufficiently concrete. You should work out the proposed construction and submit a drawing and written description. In this instance, a small scale model might be desirable but not necessary; in other cases not so easy to visualize, it might be essential.

Recently, juries and judges have tended to grant sizable awards to individuals claiming that their ideas have been pirated. This has forced corporations to act with extreme cau-

tion. Some companies carry special insurance to protect them against idea-piracy lawsuits. Even so, they do not care to risk needless litigation. Therefore, the usual policy of large industrial firms is to accept no idea disclosure in confidence. They insist that a product be patented or that an application be made to the Patent Office before a hearing is granted to an inventor.

With respect to unsolicited ideas, the following statement of policy by the Armstrong Cork Company is representative of the attitude of many big corporations:

"Anybody interested in a doormat that lights a neon 'welcome' sign when a visitor steps on the mat? Or a gun-like contraption for giving medicine to a recalcitrant patient? Or a farming implement that does practically everything short of buttering sweet corn?

"These are just random recent examples from our bulging files of unsolicited ideas and inventions which the Company receives by the hundreds each year. No matter how impractical or unsuited to our operations it appears to be, each idea sent to us is given courteous and thorough consideration under a strict procedure administered by our Legal Department. Extremely careful handling of these matters is necessary to protect the interest both of the Company and the submitter.

## HOW TO SUBMIT INVENTIONS . . .

"While the Company welcomes the opportunity to consider any and all ideas that may be useful in our business (with the exception of advertising ideas and suggestions for floor-covering designs), it is a fact that almost none of those received is of any value to us. Only one of the thousands submitted over the past several years was found to be acceptable. The vast majority are either duplicate suggestions already proposed by our own highly skilled scientists, engineers, and other members of our organization; or they are impractical; or they are completely outside the realm of our Company's activities.

"But you never know when something really new and really good will come along! And if anyone has any ideas to submit, they should write to our Legal Department and request our submission pamphlet. Their proposals will then be welcomed and carefully evaluated with the exceptions noted above. We consider only ideas that are patented or patentable; and generally, flooring designs and advertising ideas do not fall into that category."

General Motors Corporation says:

"General Motors wants every inventor to protect himself before submitting any device.

"An issued patent or a patent application is, of course, the most satisfactory form of protection. If a person does not wish to take this step until a later date, however, General Motors will consider a device where the sketches and description of it have been dated and witnessed, preferably before a notary. This should be done in duplicate, and the original copy retained by the inventor.

"Inventors residing outside the United States should file a patent application before submitting a device to General Motors.

### What to Submit

"The inventor should submit such descriptive material as will enable an engineer to understand fully the construction and operation of the device in question. The material should include an explanation by the inventor of what he believes to be new in the

device and what its advantages may be over present practice.

"Copies or the numbers of patents, and copies of patent applications, are probably best for this purpose, but adequate sketches and a clear written description are entirely satisfactory.

"Inasmuch as it is necessary that a complete record be kept of each device considered, *no material will be returned*. Therefore it is urged that Duplicates only be submitted, the inventor retaining the original copy himself. An additional reason for this policy is that, with the thousands of inventions received, many of which must be referred to several Divisions for examination, it is unavoidable even with the utmost care that some material may be lost in the mails or otherwise. We cannot assume responsibility for such loss.

"Models are unnecessary where adequate drawings and descriptions are supplied, and are likely to be damaged or lost in shipment. The Corporation cannot accept any responsibility for any loss or damage. Full-scale working samples demonstrated as part of a complete mechanism or vehicle are sometimes useful, but the expense is not usually justified."

The fixed policies of the McGraw Electric Company are similar to those of Armstrong and General Motors in relation to patents or patentable ideas. Toward nonpatentable ideas they have taken the following stand, typical of the attitude of many other companies.

### "Non-patentable" Ideas

"If a person has an idea relating to changes in the products, machines, or manufacturing processes of the Company or to uses of its products, which he thinks is not patentable because it involves merely the skill of the artisan as distinguished from invention, it also should be sent to the Company. However, such ideas rarely can be of more than nominal, if of any, value to the Company, because they cannot be protected by patents and, consequently, as soon as the Company puts such an idea

into practice competitors may copy it freely. Moreover, improvements based on the suggestions of its engineers, workmen, and other employees familiar with its work and products are constantly being adopted. The probability is great that when the time becomes ripe for the adoption of an idea of this kind it will have originated with one of the Company's employees quite independently of any suggestion by one or a number of persons outside of the organization. In order to avoid controversies as to the source of such an idea, its novelty or value, or as to whether or not what the Company sometime may do is similar to it, the Company is unwilling to consider any such idea unless it be left entirely to the Company to decide what compensation, if any, shall be paid for its disclosure to the Company."

Now don't get the idea from these cautious policies that the big companies shun new ideas. They don't. But they want to avoid lawsuits that arise when a man sends or brings in a non-patentable idea similar to one the corporation may be working on. They usually cannot divulge this, for fear the "inventor" will rush to a competitor and say, "I have just been over to the Jones Company and they are working on this very idea. Buy from me and beat them to the market."

To prevent this, the Jones Company does not tell the inventor of its own activities along the same lines as his suggestion. The officials merely say they are "not interested." Six months after this occurred in one typical instance, a large company perfected its own product (in development for five years), and offered it for sale. The "inventor" sued — and the jury, more sympathetic to

the "little fellow" than to the big corporation, awarded him \$1,000,000! The decision was reversed, but it cost the company expensive legal fees and loss of time of important executives.

One large corporation, Corning Glass Works, expresses a typical point of view this way:

"Over the last fifteen years we have never received any unpatented suggestion of substantial importance directly from members of the general public. However, during this same period, we have learned, through various channels, of a number of patented inventions — machines, processes, and articles — which we felt would be of benefit to our company. In these cases we have negotiated with the patent owner either for purchase of the patent or for license rights."

Willson Products, Inc., large manufacturers of sunglasses and protective devices for the eyes, says:

"Our policy toward new ideas is the same as most other companies'. We will certainly give consideration to any submitted, and if the idea should be accepted we will make some mutually agreeable arrangement on compensation. We prefer that these ideas be submitted in writing accompanied by either sketch or sample, and if further discussion is required a meeting will be arranged."

### **Pays Royalty of 5% on Sales**

E. H. Volwiler, president of Abbott Laboratories, leading manufacturers of pharmaceuticals and drugs, states his beliefs and company policies as follows:

"Industry generally is looking for specific ideas, whether they come from inside or outside the organization.

"This is true of our own company. We constantly strive to search out people with ideas that are capable of development, and we give an atten-

tive ear to those who come to us independently with such plans. A number of the products which we have placed on the market have had such origins. The same thing is true within our organization. We do have a fairly large research staff. The nature of many problems is such that it requires the work of teams to develop them suitably. However, the original inception must come from individuals, and our people are constantly encouraged to come up with such ideas. This is true not only in our Research and Development Departments, but the idea is carried further through a well-developed suggestion plan which we have had in operation for a quarter of a century and which has been quite successful.

"Our general policy for outside people is that we will consider an idea which they bring to us, and if it is good enough to lead to a marketable product we usually enter into an agreement with him whereby a royalty on sales is paid. The royalty varies according to whether the product is patentable or unpatentable. In the pharmaceutical industry the usual rate of royalty on a patentable product, on which an exclusive license can be given, is 5% of the net sales. On unpatentable products the royalty is somewhat less."

Many large companies are only too glad to extend a helping hand to inventors. Characteristic is this attitude of McGraw Electric Company, makers of the Toastmaster line and electrical products for industry:

"We are always looking for new ideas that we can use. We welcome suggestions from anyone and give every suggestion careful individual consideration. We answer every letter, and although we promise only to tell whether or not we are interested in making use of the suggestion, we sometimes are able to include information that we hope will be helpful, such as the results of a patent search. Although we can't purchase every idea nor promise secrecy, we handle the transaction on an arms-length, business basis. We

also supply a booklet that explains our policies and the reasons for them so that the person submitting the idea will understand the basis on which we can consider it."

## Du Pont's Attitude

E. I. du Pont de Nemours & Company takes this position, widely held by other organizations in basic industry:

"Generally speaking, du Pont and most large concerns work with an inventor on product development only if his idea is patented, or a patent application has been filed. Our company further requires that the product (1) must be in the chemical field, and (2) must be something to which du Pont, by virtue of its technical and productive resources, can make a significant contribution. For example, if the commercial development of the product involves no complex technical problems, then du Pont prefers to leave the job to the little fellow. There is a sound basis for such a policy. It not only leaves the big companies free to handle the big jobs that only they can do, but is still another manifestation of the obvious advantages of maintaining big-small business relationships on a mutually satisfactory basis. We have always found that whatever has tended to benefit small business eventually has tended to benefit du Pont, and the reverse also has been true. Not only does du Pont sell to more than 75,000 customers, most of them small businesses; it buys from more than 30,000 suppliers, most of which have less than 500 employees. Furthermore, the new products of 'big' business research invite development in many directions, opening opportunities for small business and calling forth new enterprises.

"Our assistance to the little fellows in product development consists largely of the aid offered by the technical services of our manufacturing departments. For example, it is not too far-fetched to say that the whole policy and conception of our plastics technical service is designed to aid the small molder and fabricator with his technical problems. A molding room is maintained



at our Arlington, New Jersey, plant and customers are invited to submit their dies there for trial runs at no cost to them. This would be a fairly expensive service if they had to go to an independent mold or research concern.

"You would be surprised at the amount of 'pre-patenting' counsel and assistance that is given to individual inventors by our people on an informal basis. It is easy enough to give you the official premises upon which we accept ideas and inventions for further development, but it is rather difficult to give you a picture of the 'human' side of our relations with hopeful inventors."

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#### Summer Laboratory Courses:

Offered by the Polytechnic Institute of Brooklyn, beginning June 6th, on *Progress in Polymerization and Copolymerization*, "Properties of Macromolecules in Solution," and "Industrial Applications of X-Ray Diffraction." Address inquiries to Mrs. Doris Cattell, Secretary, Summer Laboratory Courses, Polytechnic Institute of Brooklyn, 99 Livingston St., Brooklyn 1, N. Y.

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**Associated:** Joseph F. Padlon, F.A.I.C., attorney at law, with Hane and Nydick, as the firm of Hane, Nydick and Padlon, 92 Liberty Street, New York 6, N. Y.

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**Lecturer:** Dr. Alexander Silverman, Hon. AIC, professor of Chemistry emeritus, in the University of Pittsburgh, who will deliver an illustrated lecture at the Cosmos Club, Washington, D.C., May 2nd, on "Glass in the Service of Man."

#### ARDC Seeks Innovations

Do you have an idea for a new missile? Or a new principle which might revolutionize aircraft design? Or a new material which can stand temperatures that turn ordinary metals to liquid? If so, the Air Research and Development Command is interested in seeing your ideas and testing them. An ARDC development officer stated . . . "We need to receive and test all types of revolutionary ideas. Hidden among hundreds of futile ones may be an innovation which leads to a technological breakthrough."

Proposals submitted should include description of the innovation with estimates of expected performance and explanation of potential value to the Air Force, such as increasing performance or saving weight or money. Correspondence should be addressed to the Assistant for Innovations, RDTE, Headquarters, Air Research & Development Command, Box 1395, Baltimore 3, Md.

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**Elected:** Dr. G. A. Abbott, F.A.I.C., as president of the North Dakota Academy of Science. He recently retired as head of the Department of Chemistry of the University of North Dakota, at Grand Forks, but he continues active work as consulting chemist. He writes, "I am kept busy with poison cases and legal cases that others consider too hot to handle without my experience."



## Communications

### On Unionization

To Committee on Employer-Employee Relations:

In response to Dr. Keyes' request in *THE CHEMIST*, I decided to express my views on the subject, "Should Chemists be Unionized."

I am opposed to unionization and I basically agree with the opinions voiced by Keyes and Fernelius. However, will we get the support of the leaders of the chemical industries? It seems to me that the managements of some big companies would prefer to fix the salaries of chemists rather than deal with them on an individual basis. The present practice of starting young graduates with salaries close to those of experienced men certainly has had a leveling effect similar to unionization. The often heard excuse that this is due to competition for the small number of young men available is not valid in my opinion. Other ways of overcoming this shortage could be found. For instance, a competent group leader can achieve at least as much with a team of dependable technicians as he can achieve with green chemists. If managements are willing to do something in order to prevent the unionization of scientific personnel, they should try to establish basic pay scales in connection with a policy of paying a substantial bonus to valuable and successful men.

From a strategic viewpoint it was unfortunate that the author of the article against unionization was a university professor (W. C. Fernelius in *Chemical & Engineering News*) and not an industrial chemist. Many people will not consider a university professor competent to speak on this topic. In this connection, I have heard many complaints that the leaders of our profession who are in executive positions avoid talking about subjects that would irritate their managements. Sometimes ill-chosen remarks by these men intended to pacify the mind, can cause a lot of irritation. For example, a distinguished AIC member said at a meeting some years ago, that chemists who liked their work and were housed in wonderful modern laboratories, must be satisfied with lower compensation for their services than coal miners whom he assumed to hate

their work (which is as a matter of fact by no means the case).

On the other hand I cannot understand the views expressed by S. Zarcomb and R. W. Kerr in letters to the editor published in *Chemical & Engineering News* No. 51, 1954. The least to say, their experiences must be entirely different from my own. I have had many hot controversies with my superiors in my younger years. I was not fired for this and in most cases compromises were made. Even now I never hesitate to go even to top management in cases where necessary. If a chemist is valuable to his company, he should have no trouble in getting consideration of reasonable demands.

I cannot follow R. W. Kerr's line of thinking in complaining that chemists must keep regular working hours. Of course, we do not want our efficiency rated by the time we hang around, but by what we accomplish. We are willing to put our whole effort into the job that has been entrusted to us. On the other hand, if we want to be respected and essentially professional personages, we must set an example for others in every respect, including punctuality. "Punctuality is the courtesy of kings." I have heard complaints that in some places chemists absent themselves for several hours for the purpose of cashing or depositing their pay checks. This is an example of irresponsible abuse of privilege which will not help the chemists' standing in the eyes of everybody. It is not necessary for chemists to celebrate payday in the manner of common laborers. If chemists behave like laborers, they should not be surprised to be treated as such.

Finally Kerr accuses chemists to be "free loaders", because they enjoy now shorter working hours won for them by organized labor. Labor did not fight for this to accommodate us. A shorter work week has often meant more concentrated and faster work for all supervisory and laboratory personnel including chemists.

Bargaining organizations described by Messrs. Mortimer and Warner in *Chemical & Engineering News*, No. 45, 1954, worked well abroad some thirty years ago, but I doubt they would be beneficial in the long run in this country. All in all, chemists should endear themselves to

their managements by accomplishments, so that they will hate to let them go. The road may be sometimes hard and tedious, but the reward will come in the end.

—DR. H. MEISTER, F.A.I.C.  
Staten Island, N. Y.

### Appreciated

To the President:

Congratulations to Dr. (Maurice J.) Kelley and his committee on that fine *Manual of Chapter Operations*. It is an excellent piece of work which should be most helpful to everyone.

—FLORENCE E. WALL, F.A.I.C.  
New York, N. Y.

### Perplexed

To the Editor:

Your leading February editorial "Who Speaks for Scientists?" is indeed timely in its subject. So I started reading it expectantly; but when I had finished it, I was perplexed. I am not quite sure whether it is intended to be taken as a satire or at face value.

In the latter case, it seems to me to raise but not to answer two important questions — one of policy and one of content. The policy question is: Does the editorial, as a leading article in the INSTITUTE's official publication, set forth the considered position of the INSTITUTE? The content question is: What is the intent of the editorial, where does it lead and what inferences are intended to be drawn from it?

One must look to the executive arm of the INSTITUTE for an answer to the first question, but the editorial itself is the only source of an answer to the second.

In an effort to find an answer to the latter question, I attempted to analyze the editorial for basic data, inferred facts and general conclusions.

The basic data in the editorial appear to be four quotations — one from the Smyth report, one from a statement of members of the Institute of Advanced Study on the Oppenheimer case, a comment by Dr. Placzek on this case and a quotation on the same case from the *Bulletin of the Atomic Scientists* (the title of which was incorrectly given).

The inferred facts appear to be the following: Certain groups of scientists "seem

to imagine kinship with deity, if not parity therewith." One of their group (Oppenheimer) was "brought up for violation of local conventions or national laws". Some of his associates issued a prompt defense. A former Austrian "with little regard for national boundaries" (although "now an American citizen") joined in the defense. The "patient, meticulous and self-effacing scientist of days gone-by (sic) is a thing apart" from some of the modern atomic scientists. The attempt of some scientists to influence "policy makers and leaders in public opinion who can in turn influence millions of citizens" is political propaganda.

As to these inferred facts, whether one agrees or not with the pretty contrast of the modest, retiring scientist of the good old days (e.g. Nernst, Edison?) with the would-be demigods of the present, may be a matter of esthetic taste, but it seems to me that Oppenheimer's closing speech at the recent Columbia bicentennial celebration lends it no support. The implication, however, that Oppenheimer was accused of violating a national law is clearly unfactual; if he had been, he would have been tried in a court of law. He was dropped as an alleged security risk. As to violating "local conventions", God save the country if this becomes an act of impiety. Harry C. Jones of Johns Hopkins was not known as a particularly conventional man and Dr. Einstein is reported to walk the Princeton campus unshorn and without a tie. As to Dr. Placzek, if we bar citizens of foreign origin from expressing controversial opinions (rather than exercising our right to criticize the opinions expressed), we may as well turn the country back to the Amerinds.

The conclusions of the editorial seem to be summarized in its last paragraph which expresses the belief that level headed scientists will not care to be swayed by extreme minorities nor be herded into some hypothetical political party.

Of course not.

But if the editorial has any meaning (other than as a bitter satire) it is the implication that the atomic scientists are an extreme political minority and are attempting to herd other scientists into a political party. As of today this is, I believe, ridiculous in the light of the factual record.

In the face of the awful problems pre-

## COMMUNICATIONS

sented to this country and mankind throughout the world by the release of atomic energy, I have followed, as far as I have been able, the statements of competent scientists in all fields that have appeared in print, especially in *Science*, in *Nature* and in the *Bulletin of the Atomic Scientists*. I have seen no evidence of arrogance or political ambition, but only a deep desire to place before the public, including policy makers, the facts of atomic energy and their implications, to serve as an important factor in informed policy making. My few personal contacts with such scientists have confirmed this view. These men and women are the only ones competent to present such facts first hand.

As an incurable individualist and one (I hope) extremely resistant to herding, I am with all my heart in favor of the efforts of the atomic scientists to give wide publicity to the facts necessary for intelligent policy making. While the rights of every citizen to question their content is unquestioned, the right of those scientists to present their views and of every citizen to have access to them must be unhindered in a democratic country like ours.

It may be that I have misinterpreted the intent of the editorial. If so, I want to be set straight; in other words I want a clear answer to my second question above.

As to the policy question, it seems to me that in such an important matter the membership at large should have a voice in deciding the INSTITUTE's position.

P.S. For publication only if published in full.

—DR. MARSTON L. HAMLIN, F.A.I.C.  
Lynbrook, N. Y.

*Editor's Note:* Sorry it was not obvious! We stand firmly for the right of every individual to have and to express opinions on any subject but not to speak for others!

### A Low Note

To the Editor:

Your editorial in the Feb. issue of *THE CHEMIST*, titled "Who Speaks for Scientists?", strikes a pretty low note, and should not be left unchallenged.

You accuse Dr. Oppenheimer of "violation of local conventions or national laws."

To the best of my knowledge, Dr. Oppenheimer has never been accused of violation of the law. Law-breakers are indicted and brought to trial in a court of justice. Dr. Oppenheimer has not been indicted nor tried by a court of law. He has been accused of keeping the wrong company, and having the wrong opinions; surely not indictable offenses, at least not in America.

Dr. Placzek is an American citizen according to your own admission, then why refer to him as an "Austrian scientist" and imply that he has no right to express an opinion? Where do you find the warrant in our laws or constitution that grants second class citizenship to newcomers and requires them to be muzzled? It seems to me, all but the highest office in the land is open to new citizens, and all the rights and privileges that go with citizenship. Need I point out that the pages of our history are filled with glorious records of the foreign born, and that these citizens have helped America to become great?

It would serve no useful purpose to comment on other distortions in your editorial. I do not believe that as either scientists or good Americans we should distort facts and attempt to stifle discussion. There is plenty of room for honest difference of opinion in regard to the Oppenheimer case. If you, Mr. Kimball, hold different opinions on this case, from those of the scientists you presume to discredit, let us have these opinions. We will give them sincere consideration if they are sincerely expressed. But we cannot accept epithets like "foreigner", "propaganda", "parity with the deity" etc., in lieu of facts and honest discussion of issues.

Since I am native-born, I believe I qualify, in the Kimball concept of America, to be permitted to have this letter printed in *THE CHEMIST*.

—FRANK A. MEIER, F.A.I.C.  
Newark, N. J.

### Each For All?

To the Editor:

I must take exception to your editorial in the February issue of *THE CHEMIST*. It is more than proper that scientists take an active part in shaping our political future. They should be just as concerned as labor unions, management groups, and

business leaders. The scientists' products and their applications are just as important as are the products of the other above-mentioned groups. Certainly you would not deny any of them a voice in our national affairs. Just because scientists are beginning to unite to some extent to achieve certain definite goals you throw up your hands in alarm.

Was it not Dr. Donald B. Keyes who recently wrote that chemists should be more active in civic affairs and inform the public of the importance of the work that chemists are doing? Here is a man who is urging a group of scientists to go out and influence the public on a certain matter. Do you condemn him for that?

There are some scientists who feel that the survival of democratic society and free science is being threatened and who feel that they *should* do something about it. They feel that their action is for the good of mankind. That (in my opinion) is their goal. Perhaps it is political propaganda. But is that necessarily bad? As long as we have a democracy, people should be free to voice their opinions and take a part in shaping their destinies and those of their fellow men. I see no reason why scientists should not be politicians along with members of other groups.

You criticize the sponsors of the "Bulletin of the Atomic Scientists" for attempting to influence public opinion. And yet, if they sit back, they are condemned for creating a destructive power almost beyond comprehension and doing nothing about determining policies involving its applications.

Dr. Harold C. Urey is vice chairman of the board of sponsors of the "Bulletin" and he has frequently espoused unpopular causes in the past. (THE CHEMIST, January 1955). Certainly he is as individualistic a person as there is and no doubt his actions are based on firm convictions which he has regarding the responsibility of scientists in our present political situation.

In answer to your question, "Who speaks for scientists?", I say, "The Scientists."

—DR. STEPHEN E. ULRICH, F.A.I.C.  
Highland Park, N. J.

Editor's Note: As we stated before, THE CHEMIST and THE AMERICAN INSTITUTE OF CHEMISTS stand firmly for the right of every individual to have and to express opinions on any subject, whether

someone else thinks they are competent or not, but they should not speak for others.

### Machiavelli?

To the Editor:

The editorial, "Who Speaks for Scientists?" is a magnificent job and one which brings to mind the reverence as I bowed before the tomb of one Machiavelli in Sta. Croce Church in Firenze. This brings exactly the same glow of admiration. I can only say I wish I were smart enough to write so. But I was born with a literary cleaver in my hand and can use nothing else naturally. It takes real artistry to remove a clutch of hemorrhoids with a crochet hook and that does it.

—DR. L. F. PIERCE, F.A.I.C.  
Los Angeles, Calif.

**Symposium:** On the Science of Soil Stabilization, was held Jan. 12, 1955, at the National Academy of Sciences, Washington 25, D.C., during the 34th Annual Meeting of the Highway Research Board, sponsored by the Committee on Physico-Chemical Phenomena in Soils. Dr. Hans F. Winterkorn, F.A.I.C., of Princeton University, was chairman. He spoke on "The Science of Soil Stabilization." Dr. Ernst A. Hauser, F.A.I.C., of Massachusetts Institute of Technology presented a paper on "Colloid Science and Soil Stabilization."

### RARE CHEMICALS

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## AIC Activities

### C. P. Neidig, F.A.I.C.

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*Secretary-Treasurer*, Eugene R. Ewell,  
The Lowe Brothers Co.,  
424 East Third St.,  
Dayton 2, Ohio  
*Cleveland Director*, George P. Standley  
*Akron Director*, E. M. Bronstein

#### Elections

At the annual meeting of the Chapter in Akron, Ohio, April 16, 1955, the officers listed above were elected. Dr. N. N. T. Samaras, formerly Dayton Director, has been transferred to St. Louis. A new Director for Dayton will be appointed soon.

#### Western Chapter

*Chairman*, Dr. Kenneth W. Newman  
*Chairman-elect*, Thomas J. Rollins  
*Vice Chairman*, Gerald I. Gruber  
*Treasurer*, Dr. Frederick G. Sawyer  
*Co-Secretaries*: Alfred J. Webber,

Braun Corp.,  
2260 East 15th St.,  
Los Angeles 21, Calif.  
Thomas J. Kehoe,  
921 So. Washington Ave.,  
Fullerton, Calif.

*National Council Representative*  
Dr. Roger W. Truesdail

#### Honor Scroll to Dr. Beckman

The 1955 Honor Scroll will be awarded to Dr. Arnold O. Beckman, founder and president of Beckman Instruments, Inc., for his distinguished contributions in the field of analytical chemistry.

The dinner meeting will be held May 19th at Rudi's Italian Inn, Los Angeles,



Calif., preceded by a social hour at six p.m.

In his acceptance speech, Dr. Beckman, whose name is synonymous with the advances of instrumental techniques in all phases of chemistry, will discuss, "The Role of Instrumentation in Chemistry."

The younger generation of chemists will find their work applauded and their continued efforts encouraged with the presentation of the annual student medal awards. The outstanding students of chemistry in the Southern California area, and others in the eleven western states in absentia, will be so honored.

The announcement of new officers will be made and they will be briefly introduced.

### Washington Chapter

*President*, Paul E. Reichardt  
*Vice President*, Dr. Frank Gonet  
*Treasurer*, Albert F. Parks  
*Secretary*, T. Allan Davis,  
1016 Urell Place, N.E.,  
Washington 17, D.C.  
*National Council Representative*  
Paul E. Reichardt

### Annual Business Meeting

The annual business meeting and election of officers will be held May 10, 1955, at a luncheon at O'Donnell's Restaurant, Washington, D.C.

### Dr. Blum Speaks on Australia

The Chapter met April 12th at a luncheon at O'Donnell's Restaurant, Washington, D.C.

John F. Williams, chairman of the Committee for Federal Standards for Chemists, reported that the committee had studied the proposed tentative standards of the Civil Service Commission for the analytical chemical series and had submitted its comments on these standards to Mr. Reichardt for transmittal to the national AIC office, which in turn would transmit them to the Civil Service Commission in Washington, D.C., by May sixth.

Mr. Bailey, chairman of the Nominating Committee, reported that candidates for officers had been selected. Other nominations from the floor will be in order.

Mr. Bailey introduced the speaker, Dr. William Blum, Hon. AIC, who was chief of the Electro-chemical Division of the National Bureau of Standards for approximately forty years and was deputy chief chemist at the time of his retirement. Dr.

Blum gave a very interesting illustrated talk about his trip to Australia during a recent lecture tour. He covered such subjects as Australia's topography, roads, plant and animal life, population, agriculture, industry, mining, prices, and purchasing power relative to that of the United States. Dr. Blum spoke at some length on Australia's educational facilities, especially the universities, and stressed the serious shortage of technical help.

### Chicago Chapter

*Chairman*, Dr. Lloyd A. Hall  
*Chairman-elect*, Clifford A. Hampel  
*Vice Chairman*, Dr. Harold M. Coleman  
*Secretary*, John Krc, Jr.,  
Armour Research Foundation,  
10 W. 35th St., Chicago 16, Ill.  
*Treasurer*, Albert S. Henick

### Annual Meeting Host

The Chicago Chapter is serving as host to the Thirty-second Annual Meeting of The American Institute of Chemists, May 11-13, 1955, at the La Salle Hotel, Chicago, Ill.

### Items

From the second number of the Chicago Chapter's *Newsletter*, we learn that Dr. Bernard Friedman of Sinclair Oil Company, a former chairman of the Chapter, is serving on the Board of the Citizens School Committee and is chairman of the Chicago Technical Societies Council Committee on School Board Property.

Dr. Herman Bloch of Universal Oil Products Company, also a past chairman of the Chicago Chapter and currently chairman of the Chicago Section of the American Chemical Society, is serving his community as assistant scoutmaster.

The Student Awards Committee, under Dr. R. L. Bond of Armour Research Foundation, has corresponded with thirty-nine colleges and universities in the Chicago area to select student medalists.

Miss Mignon Gill of Universal Oil Products Company heads the Membership Committee and reports eighteen new members.

Arthur Mark of the Transparent Packaging Company heads the Committee on Economic Status of Chemists, which, with the assistance of Dr. William I. Harber, Dr. G. Benham, Dr. Blair, J. Thompson and G. Renzanka, is preparing a brochure to show what the AIC is doing to fulfill its objectives.



**Dr. Gustav Egloff,  
1885-1955**

**Dr. Hilton Ira Jones,  
1882-1955**

Members of The American Institute of Chemists are saddened by the death of Dr. Gustav Egloff, on April 29th, and Dr. Hilton Ira Jones, on May 2nd.

Dr. Egloff of Universal Oil Products Co., Des Plaines, Ill., was AIC president from 1942 to 1946. He was an Honorary AIC member, who received the AIC Gold Medal in 1940. He served on the National Council for many years, most recently as representative to the Council from the Chicago Chapter.

Dr. Jones of Hizone Products Co., Wilmette, Ill., was formerly chairman of the Chicago AIC Chapter. He received the Chapter's Honor Scroll in 1953. Noted for his popularized lectures and writings based on scientific material, he has been a member of the editorial advisory board of THE CHEMIST for many years.

### **New York Chapter**

*Chairman, John Kotrady  
Vice Chairman, Jack Dollinger  
Secretary-Treasurer, Richard L. Moore  
National Council Representative  
Karl M. Herstein*

### **Honor Scroll to Dr. Hass**

In recognition of his professional accomplishments in science, education and industry, Dr. Henry B. Hass, F.A.I.C., president of Sugar Research Foundation, Inc., will receive the 1955 Honor Scroll of the New York AIC Chapter.

The award which will be the highlight of the Chapter's annual meeting, June second, at the Commodore Hotel, New York, N.Y., pays tribute to Dr. Hass' advancement of petrochemicals and pioneering in the new field of surochemistry, in addition to his professional attainments.

The scroll, which will be presented by John Kotrady of The Texas Company, chairman of the Chapter, was presented last year to Dr. Hans Thatcher Clarke of

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the College of Physicians and Surgeons at Columbia University. Following the presentation, Dr. Hass will speak on "Stimulating the Creative Mind" in which he will show how conditions in a democracy are conducive to creative thinking.

The honorary chairman of the meeting will be Dr. Raymond E. Kirk of Polytechnic Institute of Brooklyn. The dinner meeting, which starts at seven, will be preceded by a reception at six o'clock, in the Century Room of the Commodore, sponsored by the Sugar Research Foundation. Tickets are \$8.00. Reservations can be made by calling or writing Shepherd Stigman, 29 West 15th St., New York 11, N.Y. (Watkins 4-8800). Dress is optional.

### **Will You Come**

**May 5, 1955.** New Jersey Chapter. Dinner, Military Park Hotel, Newark, N. J. Award of 1955 Honor Scroll to Dr. Elmore H. Northey. Speakers: Dr. Raymond E. Kirk, F.A.I.C., Dean of Graduate School, Polytechnic Institute of Brooklyn, in behalf of Dr. Northey; Dr. Charles D. Flory, Personnel Consultant, Rohrer, Hibler & Replogle, on "Creative Thinking." Medal Awards to outstanding students.

**May 5, 1955.** Pennsylvania Chapter. Dinner 6:30 p.m. Engineers Club, Philadelphia, Pa. Annual business meeting. Speakers: Warren Thompson, Dept. of Licenses & Inspections, and P. W. Purdom, Div. of Air Pollution Control, City of Philadelphia, "The Responsibility of the Chemical Profession to the Community."

**May 10, 1955.** Washington Chapter. Luncheon. O'Donnell's Restaurant, Washington, D.C. Annual Business meeting and election of officers.

**May 11, 1955.** National AIC Council and Board of Directors. The LaSalle Hotel, Chicago, Ill. Dinner 6:00 p.m.

**May 11, 12, 13, 1955.** AIC Annual Meeting. LaSalle Hotel, Chicago 2, Ill.

**May 19, 1955.** Western Chapter. Dinner Rudi's Italian Inn, Los Angeles, Calif. Award of Honor Scroll to Dr. Arnold O. Beckman, who speaks on "The Role of Instrumentation in Chemistry." Award of student medals to outstanding students in the Chapter area. Announcement of new officers.

**June 2, 1955.** New York Chapter. Honor Scroll Dinner. Hotel Commodore, New York 17, N. Y. 6:00 p.m., Cocktails, courtesy The Sugar Research Foundation. 7:00 p.m. Dinner. Hon. Chairman, Dr. Raymond E. Kirk, F.A.I.C. Chairman, John Kotrady, Introduction of Dr. Henry B. Hass, F.A.I.C., by Dr. G. Bryant Bachman of Purdue University. Presentation of Honor Scroll to Dr. Hass, John Kotrady. Acceptance, "Stimulating Creative Thinking," Dr. Hass. Reservations: (Dinner \$8.00) Shepherd Stigman, Foster D. Snell, Inc., 29 W. 15th St., New York 11, N. Y. (Watkins 4-8800).

**June 16, 1955.** AIC Board of Directors and National Council. Luncheon 1:00 p.m. The Chemists' Club, 50 East 41st St., New York, N.Y. (Board meets at 12:30 p.m. Room C.)

**May 9, 10, 11, 1956:** AIC Annual Meeting. Hotel Statler, Boston, Mass.



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## Opportunities

### Doris Eager, M.A.I.C.

AIC members who are seeking positions may place notices in this column without charge.

### Chemists Available

**Research Administrator**, Ph.D. organic chemistry, presently employed as director of organic research with a medium sized company manufacturing industrial and fine chemicals. 15 years responsible experience. Age 36. Desires position in research supervision, management or technical service. Box 50, THE CHEMIST.

**Professorship or Research Director:** F.A.I.C., B.S. in Ch.E., Ph.D. physical chemistry. 14 years chemistry and chemical engineering teaching and academic research; 11 years industrial research and chemical engineering development. Specialized experience in atomic energy, explosives, jet propulsion, combustion, electrochemistry, corrosion. Publications, Patents. Desires professorship or challenging position in research administration. Box 52, THE CHEMIST.

**Administration or Sales.** 37, M.S. (Chemical Economics), F.A.I.C. Quadrupled efficiency of analytical laboratory, directed multi-plant expansion program which tripled dyestuff output; sold surplus chemicals which had been regarded unmarketable. Experienced writer and speaker. Prefer South, but will consider any location. Box 54, THE CHEMIST.

**Chemical Engineer.** 13 years varied experience. Laboratory administration, production supervision. Polymers, metal finishing. Writing. Liaison work between production and management. Box 56, THE CHEMIST.

**Industrial Chemist.** 20 years experience in analytical, research and development—water, protective coatings, electroplating, isotopes, corrosion, petroleum products, miscellaneous organic and inorganic, ferrous and non-ferrous metallurgy. Age 43. Family. B.S. Desires technical service or sales liaison position. Box 58, THE CHEMIST.

## OPPORTUNITIES

### Positions Available

**Assistant Research Director.** Chemist or Chem. Eng., Ph.D., 30-40 years old. Position involves administration. Previous experience may be varied instead of specific. Salary commensurate with experience. Metropolitan New York area. Box 51, THE CHEMIST.

**Biochemist.** Ph.D., with few years experience in protein chemistry. To supervise program of research in biochemistry. Location New Jersey. Box 53, THE CHEMIST.

**Assistant Project Engineer.** Chemist with 4 or 5 years experience in detergents. Special talent. Salary up to \$8,000 plus bonus. Box 55, THE CHEMIST.

**Director of Research and Development,** to establish and direct research and development program for plastic coating of company products. Must have Ph.D., four years experience in plastics. Age preferred is 30-40, but an older man will be considered depending upon his over-all qualifications. Attractive salary plus profit sharing arrangements. Box 57, THE CHEMIST.

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**Special Issue:** The January-February, 1955, issue of *Southern Chemical Industry*, entitled: "The South in 1975." The publication is the Journal of the Southern Association of Science & Industry, Inc., in which AIC Fellows, Dr. Stewart J. Lloyd, Dr. Orville E. May and Dr. George D. Palmer have long been active leaders.



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**Orton Memorial Lecture:** Was given by Dr. Alexander Silverman, Hon. AIC, professor of chemistry emeritus, University of Pittsburgh, before the American Ceramic Society, April 25th, at the Netherland Plaza Hotel, Cincinnati, Ohio. His illustrated lecture on "Glass Through the Ages" covered progress from ancient times to the present.

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**Research:** From a Management Viewpoint, was discussed in the acceptance paper of Roger Williams, vice president of E. I. du Pont de Nemours & Company, when he received the Perkin Medal of the American Section of the Society of Chemical Industry, Jan. 14th. "A good research program is the end product of rigorous survey, analysis and selection," he pointed out. "In its preparation, first comes a survey of needs and opportunities, resulting in clear definition of objectives. Next there must be a realistic analysis of the adequacy of the ideas and means available to reach each defined objective. Finally, the program for the budget period is formulated by highly selective choice among objectives, taking relative importance, relative timeliness, and relative feasibility all into account. The conversion of that program into dollars by multiplying programmed man-years by forecast cost per man-year will yield that budget which is justified by, and adequate for, the current needs and opportunities of the business."

**Purchased:** By Foster D. Snell, Inc., 29 W. 15th St., New York 11, N. Y., the Crippen and Erlich Laboratories, Inc., of 1138 E. North Ave., Baltimore 2, Md. Raymond C. Crippen, F.A.I.C., founded the Laboratories in 1949. Under the new ownership, he will continue as secretary-treasurer of the corporation and director of the laboratory. Other officers of the new subsidiary will be Dr. Foster D. Snell, F.A.I.C., as president and Dr. Chester A. Snell, F.A.I.C., as vice president.

**Recommended:** In conclusions of the Fifth Thomas Alva Edison Foundation Institute, that Professional Societies should:

- (a) Organize at local levels, with the aid of industry, out-of-hour credit classes for high school science and mathematics teachers;
- (b) Establish at local levels continuous liaison with elementary and secondary education;
- (c) Provide special recognition for outstanding teacher performance through membership awards, and trips to professional conferences;
- (d) Increase the contacts by members of the Engineers Joint Council for Professional Development with local guidance counselors; and
- (e) Emphasize the opportunities in engineering and science for women.

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**Selected:** As associate trustee of the University of Pennsylvania, Dr. W. A. LaLande, Jr., F.A.I.C., vice president, research and development, Pennsylvania Salt Manufacturing Company, Philadelphia 7, Pa.

**Honored.** Dr. Lyle R. Dawson, F.A.I.C., who was chosen by University of Kentucky faculty members as "Distinguished Professor of the Year." He is head of the Department of Chemistry of the University of Kentucky and is the eleventh member of the college to receive the award since it was established in 1944 as a means of recognizing outstanding academic achievement. As a result of his selection, he will be given a period free of teaching duties to conduct research of his own choice and he prepared the annual Arts and Sciences lecture given on March 10th. Dr. Dawson spoke on "Some Aspects of the Chemistry of Nonaqueous Solutions."

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**Established:** Orlando Research, Inc., 100 Crystal Lake Drive, Orlando, Florida, by Glenn A. Greathouse, F.A.I.C., who was formerly with the National Academy of Sciences. Dr. David E. Barnes is vice president. The organization performs radioactive, biochemical and biophysical research; the usual chemical research and synthesis; product development; material exposure test-evaluation, and research consultation.

**Meeting:** Of The Electrochemical Society, Inc., (216 W. 102nd St., New York 25, N. Y.) will be held at the William Penn Hotel, Pittsburgh, Pa., Oct. 9-13, 1955.

**The Pfizer Farm:** Located at Terre Haute, Indiana, was visited by members of the Chemical Commercial Development and the Chemical Market Research Associations in January. The Pfizer Agricultural Research and Development Farm is operated by Chas. Pfizer & Co., Brooklyn 6, N. Y., to do research on animal nutrition and health. More than 7000 animals are raised on the 700-acre farm, cared for by one-hundred persons, of which twenty-six are staff nutritionists and veterinarians. Research includes projects on the development of the Vigo Factor (unidentified growth stimulant); the benefits of Terramycin and other antibiotics in animal feeds; the use of hormones to stimulate growth of cattle; and the addition of vitamins to animal feeds.

**Meeting:** Of the Armed Forces Chemical Association, Cleveland, Ohio, June 16-17, 1955, at the Hotel Cleveland. For information: Armed Forces Chemical Association, 2025 Eye St., N.W., Washington 6, D.C.

**Speakers:** Before the Chemical Engineers of Greater New York, February 16th, included, Richard L. Moore, F.A.I.C., on "Where Do You Stand and Where are You Going in the Next Ten Years," and Dr. G. L. Royer, F.A.I.C., on "Training for Management."



**Appointed:** Paul S. Hess, F.A.I.C., as technical director of the General Plastics Corp., Paterson, N. J. He was formerly with National Lead Research Laboratories and Congoleum-Nairn as senior chemist in the research division.

**Appointed:** John J. Levenson, Jr., F.A.I.C., as senior associate of Cresap, McCormick & Paget, management consultants with offices in New York and Chicago. He was formerly technical advisor to the chairman of the board of Reichold Chemicals, Inc.

**Established:** By Herbert Talboys, former president of Palo Laboratory Supplies, Inc., the firm of Talboys Instrument Corporation to manufacture variable and constant speed stirrers and other instruments for laboratory and industrial use. The new firm is located at 13 Ackerman Ave., Emerson, N. J.

**Fluidization Techniques:** Were discussed at a Symposium on Fluidization in Practice held by The Polytechnic Institute of Brooklyn in cooperation with the New York and New Jersey Sections of the American Institute of Chemical Engineers, in the auditorium of the Brooklyn Law School, Brooklyn, N. Y., February 2nd. Dr. Donald F. Other, F.A.I.C., professor of chemical engineering at Polytechnic, presided.

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**Elected:** President of Nopco Chemical Company, Harrison, N. J., Ralph Wechsler, F.A.I.C., formerly treasurer of the company. He joined Nopco in 1921 as chemist, later becoming chief chemist, a member of the board, and treasurer. He will also act as chief officer of Metasap Chemical Company, a subsidiary of Nopco.

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**Celebrating:** Ledoux & Company of Teaneck, N. J. (formerly of New York, N. Y.) its 75th anniversary. The laboratory employs 135 chemists, technicians, weighers and samplers. The laboratory's work includes consultation, research and testimony on inorganic problems.

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**Established:** A consulting office at 54 West St., Northampton, Mass., by Edwin J. Barth, F.A.I.C., authority on asphalts and bituminous roads. He was formerly with Shell-Mex, Ltd., in Mexico and with Nynas Petroleum Company in Stockholm, Sweden. He was recently consultant on asphalt for Gulf Oil Corporation.

## For Your Library

### Compounds with Condensed Thiophene Rings

By H. H. Hartough & S. L. Meisel. *The Chemistry of Heterocyclic Compounds series Volume 7. Interscience Publishers, Inc.* 1954. 515 pp. Single copy \$16.50. Subscriber \$15.00.

Written by two Socony-Vacuum chemists, this volume contains a critical review of the literature and a complete list of references to all condensed ring systems containing the thiophene nucleus and their respective derivatives up to May 15, 1952.

A separate chapter deals with the thio-indigo dyes (so numerous that to list them all would have required hundreds of additional pages) and summarizes the existing data. This chapter was revised by A. J. Johnson of Du Pont, who compiled the patent bibliography at the end of the chapter, and should fill a real gap in the chemical literature. This volume ranks with others in the series as "a must" for the organic chemist.

—Dr. Frederick A. Hessel, F.A.I.C.

### Stewart's Scientific Dictionary

By Jeffrey R. Stewart, *Stewart Research Lab.* 788 pp. 6" x 9 1/4". \$10.50. (Outside U.S. \$12.50).

The author was formerly special assistant to the Quartermaster General, Department of Defense, Washington, D.C., and he is the editor of the *National Paint Dictionary*, first published in 1940. This *Scientific Dictionary* is the outgrowth of that excellent previous work with the addition of terminology from the chemical process industries, such as plastics, soaps, detergents, petroleum, industrial chemicals, etc. The author states in the preface, "It is conceded that every trade product or industrial material used in the chemical process industries is not listed." However, the book includes some terms not found in other dictionaries, and the definitions given are unusually full and explanatory, beginning with "AA Castor Oil" and ending with "Zopaque." The book is on quality paper, well-bound, and durable. As a reference volume on this editor's desk, it is appreciatively used.

—V. F. Kimball

### Essentials of Physiological Chemistry

Fourth edition. A. K. Anderson. *John Wiley & Sons, Inc.* 480 pp. 6 1/2" x 9 1/4". \$5.00

This textbook has been written for the undergraduate student. New changes include: isotopes; Haworth formulas for many carbohydrates; photosynthesis; lipid anti-oxidants; and new facts on antibiotics; vitamins; and hormones. This book clearly presents the important basic principles of physiological chemistry.

—Dr. HENRY TAUBER, F.A.I.C.

### Condensed Pyridazine and Pyrazine Rings

(Cinnolines, Phthalazines, and Quinoxalines). By J. C. E. Simpson. *Interscience Publishers, Inc.* 1953. 394 pp. \$12.50

Fifth in the series of monographs devoted to the Chemistry of Heterocyclic Compounds by a group of authorities, this volume was prepared by the late Dr. James Simpson, who was director of the Medical Research Council group for Research in Chemotherapy at Manchester University and I.C.I. Fellow of the Liverpool School of Tropical Medicine.

The authority on the ring system, Dr. Simpson was also widely recognized in the wider field of related nitrogenous heterocyclic compounds. At the time of his death he was engaged in researching on trypanocidal compounds. Dr. Simpson undertook this present work to "ensure continuity with, and expansion from, Meyer-Jacobson's *Lehrbuch des organischen chemie*, Vol. II, and fully covered the literature from 1917 to the end of 1948 with adequate reference to that of 1949. His emphasis was on a critical presentation rather than on mere compilation of data. Since the chemistry of the quinoxalines rested on a much broader basis of established fact and the early literature on the subject had been well covered in Meyer-Jacobson's *Lehrbuch*, these compounds are treated much less extensively in this volume than are the cinnolines and phthalazines, largely undeveloped twenty-five years ago.

Appendices cover: Ultraviolet Absorption Spectra of Cinnoline and Quinoxaline Derivatives; Basic Strengths of Cinnoline,

## FOR YOUR LIBRARY

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This is a valuable addition to the library of the young chemist.

—DR. FREDERICK A. HESSEL, F.A.I.C.

### Standard Methods of Clinical Chemistry

*Vol. I. By the American Association of Clinical Chemists. Editor-in-chief: Miriam Reiner, Director, Chemistry Lab., Gallinger Municipal Hospital, Washington, D.C. Academic Press, Inc. 1953. 142 pp. \$4.50.*

This extremely well-presented volume will be useful to clinical chemists and invaluable for technicians. The latter will find an easily understood explanation, not only of the best way of making the tests which form their daily tasks, but also of the scientific principle underlying each one. There are also many hints in the introduction about techniques of ventriculography, sterilization of instruments and so forth which should prove particularly useful to the technician. As for the clinical chemists, they will find that this, and the future volumes in this series, will bring them up-to-date on the very latest methods and instruments.

Since the clinical chemist is such an important member of the medical team responsible for diagnoses and therapy, the series written for his benefit should make a real contribution toward an improvement in the medical care of the population.

—DR. FREDERICK A. HESSEL, F.A.I.C.

### Advances in Catalysis

*Vol. F. Academic Press. 487 pp. 6 1/4" x 9 1/4". \$11.00.*

This volume is a continuation of a series of articles by experts on developments in Ammonia Synthesis, Surface Conditions by Vacuum Microbalance, Fischer-Tropsch Catalysts, Hydrogenation of Organic Compounds with Synthesis Gas, and the Uses of Raney Nickel Catalysts. An obituary on Dr. Ipatieff and a commentary on the contributions of Russian scientists are included.

—DR. JOHN A. STEFFENS, F.A.I.C.

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### Statistical Analysis in Chemistry and the Chemical Industry

*By Bennett & Franklin. John Wiley & Sons, Inc., 1954. 724 pp. 6 1/4" x 9 1/4". \$8.00.*

Within this volume is a most complete treatment of the statistics of experimental data, with all the methods, nomenclature and analysis elaborated in detail.

### Chemical Books Abroad

Rudolph Seiden, F.A.I.C.

Walter de Gruyter & Co., Berlin W. 35: *Qualitative Schnellanalyse*, by G. Charlot; 1954, 82 pp.; paper covers DM-7.80.—A German translation of the excellent French book on rapid cation reactions by Charlot, Bezier, and Gauguin, supplemented by a treatise on rapid anion reactions by J.M. Odekerken.

Theodor Steinkopff, Dresden: *Optische Messungen*, by F. Loewe; 6th ed., 364 pp. (148 ill.).—Spectroscopy, photometry, refractrometry, and interferometry—the instruments and their practical uses in analytical, research, and industrial laboratories — are described in detail. Of great value is the 42-page literature review.

Sir Isaac Pitman & Sons, London: *Principles of Biochemistry*, by M. V. Tracey; 1954, 194 pp.; sh 20.—A biological approach to the problems of biochemistry. The cell in isolation and its behavior in specific environments, as well as the phototrophic, chemotrophic, necrotrophic, and biotrophic modes of life (as related to the sources of energy used by the organisms) are dealt with, giving the chemist, who wishes to become a biochemist, the needed biological background.

Karl F. Haug Verlag, Ulm-Donau: *Diagnose und Prognose aus dem Harn*, by M. Weiss; 2nd ed., 199 pp. (26 ill., 29 tables); DM 22.—A simple laboratory guide to patho-chemical urine diagnostic; with interesting tables giving complete qualitative urine analyses for 20 patients to prove the importance of urinalysis for the diagnosis and prognosis of many diseases. • *Die Bedeutung der Nitsche Reaktion*, by W. Teusch; 28 pp.; paper covers DM 2.60.—The N.R. (Nitsche reaction) for the diagnosis of carcinomas is based on the decomposition of fibrin, in the presence of Ca ions, with the help of a proteinase found in the urine.

Johann Ambrosius Barth, Leipzig C1: *Praktische Einführung in die physikalische Chemie*, by K.L. Wolf and H.G. Trieschmann; 3rd ed., 255 pp. (66 ill.); DM 9.70.—This practical introduction to physical chemistry explains with the help of numerous experiments and mathematical examples the fundamentals of electrons, ions, atoms, molecules, gases, liquids, solids, and chemical reactions.

Springer-Verlag, Berlin W 35: *Die Polyamide*, by H. Hopff, A. Mueller, and F. Wenger; 1954, 423 pp. (80 ill.); DM 43.20.—Chemistry of the polyamides and their many uses as plastic and textile raw materials are the topics of this monograph; it includes brief discussions on hundreds of patents and hundreds of literature references (till 1950).

## Something New

"Microburet-pipet—10 ml size." Information. The Emil Greiner Co. 20-26 N. Moore St., New York 13, N. Y.

"Surety Industrial Aprons and Protective Apparel." The Surety Rubber Co., Carrollton, Ohio.

"Testing of Hydrometers." NBS Circular 555. 10-pp. 10 cents. Order from Government Printing Office, Washington 25, D.C.

"Drage Viscometers." 8-page brochure. Drage Products, Inc., 406—32nd St., Union City, N. J.

"New Chemicals including bis-cyclopentadienyl iron (II) and hematoporphyrin." Information. Biotronic Labs., Silver St., Coventry, Conn.

"Ultrasonic Drill Model U 600." Information. Vibro-Ceramics Corp., Metuchen, N. J.

"Servo Analyzer — automatic transfer-function measuring & plotting system." Bulletin 1170. Minneapolis-Honeywell Regulator Co., Industrial Div., Sta. 213. Wayne & Windrim Aves., Philadelphia 44, Pa.

"Radioactivity Anomalies Technique." Data relative to prospecting for oil. The Radiac Co., Inc., 489 Fifth Ave., New York 17, N. Y.

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